

From owner-qrp-l@netcom.com Mon Mar 20 14:18:29 1995
Date: Mon, 20 Mar 95 09:27:18 MST
From: miker@cc.com (Mike Robinson)
Subject: <didn't bother with a subject>
Message-Id: <9503201627.AA06005@cc.com >

Jerry,

Yeah, there are some of those hams out there. You've just got to ignore them and move on. One of my first QSO's was from California to Florida on 5 watts. We did the first exchange and I noticed the QSB wasn't coming all the way up. So I figured we were going to lose each other soon. I told him the band sounded like it was changing and was it ok if I QSL. He returned with, "I've no patience with paper chasers, if you don't want to chat just say so!" I replied, "I'll talk as long you want." Which was the wrong way to phrase that. He came back, "Don't do me any favors. SK" He then immediately started CQing. I didn't let him go. I jumped in and asked how I had offended him. He told me he wasn't offended and started CQing again.

The way I figure it, the majority of hams are good folks. There are a handful that have lost the spirit. For them, I can't figure out why they're still on the air.

They just aren't running full wavelengths. ;^}
Some hams have their finals in backwards. :-o
Sometimes the feedline doesn't go all the way up. 8*>
The rig is on, but nobody's in the shack. :~)

Take you're pick.

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=====
7.3 de Michael aa0ub          | QRP:
miker@cc.com      Norcal #857  | "This thing's a radio?"
=====
```

From owner-qrp-l@netcom.com Mon Mar 20 11:07:58 1995
Date: Mon, 20 Mar 1995 07:26:29 -0800
From: dgf@netcom.com (David Feldman)
Message-Id: <199503201526.HAA04978@netcom14.netcom.com>
Subject: Denver to Dayton carpool/lodging

I have been planning to drive to Dayton from Denver, but my plans were disrupted by loss of carpool partner & lodging at the last minute. Any qrp'ers along I-70 care to share the ride and make lodging for one available? The exact

timing is flexible and I can either drive or ride and share expenses - the main absent thing is lodging at this point. I had planned to take two days on the drive, stopping somewhere in Missouri.

Thanks!

73 Dave WB0GAZ dgf@netcom.com

From owner-qrp-l@netcom.com Mon Mar 20 17:31:11 1995
Date: Mon, 20 Mar 1995 13:01:45 -0800
From: n1list@netcom.com (Michael L. Ardai)
Message-Id: <199503202101.NAA11778@netcom18.netcom.com>
Subject: DVK article correction

Re: Build a DVK for under \$15, QST April '95

Due to a minor slipup, an update didn't make it into my article.

S2 should be a *normally closed* pushbutton, not normally open.

I appologize for any inconvenience.

/mike

From owner-qrp-l@netcom.com Mon Mar 20 20:30:58 1995
Date: Mon, 20 Mar 1995 20:24:49 -0500
From: Chris Doherty <doherty@lydian.scranton.com>
Subject: grounding the shack
Message-Id: <Pine.3.89.9503202000.A10227-01000000@lydian.scranton.com>

There is an article in "73" magazine dealing with grounding equipment in the shack. The author of the article states that if the shack is to be located above ground level (mine will be on the third floor) that special techniques will be required to insure adequate grounding. I was planning on using the method of grounding described: braid from equipment to ground plate, then #6 stranded wire to grounding rods, but I don't know what the "special techniques" are. The author stated these were beyond the scope of the article. Could I get some help on this?

-73- de _3___ qrp (waiting for the call)

Chris Doherty
doherty@lydian.scranton.com (sk)

"I never want to be so down
that it begins to look like up."

From owner-qrp-1@netcom.com Mon Mar 20 12:12:00 1995
Date: Mon, 20 Mar 95 11:18:54 EDT
From: bobm@amazon.cts.comsat.com (Robert Marchese)
Message-Id: <9503201718.AA14662@amazon.cts.comsat.com>
Subject: Re: How about a WWW site?

>>I've just started playing with some HTTP server software. I'm toying with
>>the idea of providing an official WorldWide Web site for this list.

>>

>I think there is already a WWW site for this list. it was set up
>by Steve (the SSB foxhunt guy) in Raleigh, NC.

>

>http to sunsite.unc.edu, I cannot remember the exact path right now,
>but it contains ALL messages in this list since it started in 93,
>foxhunt results, your pictures, qrp rig reviews, everything you mentioned
>is in there, I think.

>

>you maybe aware of this site already.
>just avoiding the reinvention of the wheel.

>

>jerry

This site sounds great. Does it still exist? If so, where? I could not find
it from the description Jerry gave.

Bob M., wg3n

From owner-qrp-1@netcom.com Mon Mar 20 15:17:43 1995
Message-Id: <v01510119ab93758e5a17@[149.82.22.63]>
Date: Mon, 20 Mar 1995 11:11:49 -0800
From: kevinpu@atm.com (Kevin Purcell)
Subject: Re: How DOES a J-pole actually work?

>(a) People seem willing to use them who pooh-pooh the end-fed Zepp
>antenna--to which at least one author (Moxon) ascribes a built-in loss of 3
>dB--which is the same thing as J with the half-wave section bent 90 degrees
>to the side, and

You mean 180 degrees don't you :)

The original Zepps where hung from the bottom of Zeplins (but you knew
that -- I'm sure I read that in an ARRL publication or perhaps RSGB).

Not flame bait!

Kevin Purcell, N7WIM // work: kevinpu@atm.com // home: xenolith@halcyon.com
| "The best way to get information on
Join Seattle's dBug Mac Developers SIG | UseNet isn't to ask a question
and meet other Mac programmers! | but to post the wrong information"

From owner-qrp-1@netcom.com Mon Mar 20 11:08:23 1995
Date: Mon, 20 Mar 1995 07:24:01 -0500 (EST)
From: David Moody <MOODY@Admin.Rose-Hulman.Edu>
Subject: Re: I-Net op tip #102 WAS: signing /QRP
Message-Id: <01HOCMZU7FG08Y4WPZ@ADMIN.Rose-Hulman.EDU>

IN%"prvalko@Oakland.edu" writes:
[...bandwidth saver invoked to protect myself...]
>beginning of a message... it is considered "bad form," like a chirpy, C02
>station on 40M calling CQ 75 times before sending his call. Learn to use
>your editor, it's fun and, like Mom always said, "it's good for you, too!"
>
>vy 73! =paul= wb8zjl

So you've heard him too...

Now for my two milliwatts on the subject of included text. How many of you like those QSOs where the other guy (none of us do this, right?) says "OK on the 599, OK on running QRP, OK on..." You get the idea. We know what we sent. We hope he got it, and if he didn't, he will ask us to repeat stuff that he missed. Same goes for nets and roundtables where everyone has Q5 copy of everyone else (gee, kinda like this list.) Oh well, I hope that I didn't make anyone feel uncomfortable, but good operating practice is something that everyone should do if at all possible. Yeah, we all slip at times, but...

I've heard quite a few stations send CQ for 2 minutes before sending any ID, and it's obvious that they don't have QSK, because you can key down right on top of them with no reaction, and then when they finally sign, you call them and they come right back to you with a 599.

Just my two milliwatts worth...

72 es 73, David Moody, KD8NY
(yes, I know, there are some who consider my sig file to be too long.)

David A. Moody | E-mail: David.Moody@Rose-Hulman.edu
Admin. Programmer/Analyst | Finger: mgrdam@crux.Rose-Hulman.edu

Rose-Hulman Inst. of Tech. | Amateur Call: KD8NY (CW QRP) ex-WB9MMD
Terre Haute, IN USA 47803 | (VMS Rules!!! (but RSTS was fun.))
Wk Ph: 812.877.8183 |

Any facts expressed within belong to everybody.
Any opinions expressed within are my own and are not
necessarily the same as my employer, family, friends, etc.
It is up to you to know the difference.

From owner-qrp-l@netcom.com Mon Mar 20 18:50:57 1995
Date: Mon, 20 Mar 1995 17:30:25 +0000 (GMT)
From: bob.smith@internetMCI.netcom.com (Bob Smith)
Subject: Innovative LED SWR Circuit?
Message-Id: <01HOD86M6MSY8Y4WUX@MAILSRV1.PCY.MCI.NET>

I like QRP mostly for the portability gang. Just built a NorCal 40A and I love it to death. What gets my goat is all of the EXTRA gear I have to lug around.

Right now I am using a Random wire with the small MFJ tuner because a resonant wire will not exhibit the same SWR characteristics with every installation. To use it I must have some type of SWR meter as well - another piece of equipment.

Is there some circuit that I can add to the MFJ tuner that will light an LED at tuned resonance (or turn it off). This would streamline the gear I must lug around and be a cool project to build.

Bob Smith networkMCI Marketing

From owner-qrp-l@netcom.com Mon Mar 20 15:29:48 1995
Message-Id: <v0151011dab937c15e299@[149.82.22.63]>
Date: Mon, 20 Mar 1995 11:17:17 -0800
From: kevinpu@atm.com (Kevin Purcell)
Subject: Re: Mike C's ARCI Letter

> I agree also that we need to restructure the constitution and make
> it much easier to work with. There is a lot of work to be done, but it is
> a worthwhile cause. We definitely need a national organ for QRP, and ARCI
> is the way to go. There are some rather large regional clubs, but ARCI is
> the National Club, and it should act as a resource and representative for
> the regional clubs. NorCal has over 1100 members now, but it does not have
> national leadership as its focus, nor was it ever intended to. I think the
> same can be said about the Michigan QRP Club, NorthEast, NorthWest, Colorado
> QRP Club, St. Louis, Oklahoma, Central Pennsylvania, Illinois, etc. I do
> believe that all of these clubs are supportive of ARCI.

How about adopting a federated structure when changing the constitution?
Make the ARCI deal with the national level and the regional clubs deal with the regional level.

It will take some cooperation between all the local organisations but it might leave the ARCI in a stronger position.

Kevin Purcell, N7WIM // work: kevinpu@atm.com // home: xenolith@halcyon.com
Join Seattle's dBug Mac Developers SIG | "The best way to get information on
and meet other Mac programmers! | UseNet isn't to ask a question
but to post the wrong information"

From owner-qrp-l@netcom.com Mon Mar 20 18:12:57 1995
Date: Mon, 20 Mar 1995 12:56:46 -0800 (PST)
From: Stephen Lee <slee@u.washington.edu>
Subject: NC40a, il marche!
Message-Id: <Pine.A32.3.91c.950320122340.13846B-100000@homer21.u.washington.edu>

My 16 year old just finished his first HAM radio kit, the NorCal 40A, this weekend. A quick visual inspection revealed no shorts or parts out of place so we fired it up. I'm still amazed at how well these NorCal rigs work right from the get go. Tuned around and heard some CW...too fast for novice code and a 3 letter call...so I copied down the transmission and here it is:

CQ CQ CQ de KFS KFS KFS/AQSX 468121622 MHZ

Hmmmm....tuned up band and copied WV WV WV then a CW weather broadcast. Fascinating....a quick check with a frequency counter on the VFO told us we were at 7.5 something MHz. Then my son, KC7FAE, recounted the turns on the big torroid (can't get too technical here, hi hi) and discovered he had only wrapped 48 times. Bet Jeff, NH6IL could shed some light on the KFS station, eh Jeff? It's going off the air for good come April 1, 1995, I hear. Rewrapping the torroid for 56 turns put us in the novice band, slightly left of center. I had a fine QSO last night (45 minutes) with Vera in San Diego on 2 watts of power with a signal report of 599! Guess who's on the upgrade path now...KC7FAE!!! He put it together, aligned it, found the problem and fixed it all on his own. He's one proud kid right now...thanks Wayne and all the crew at NorCal for allowing this to happen!

And for all of us lamenting the loss of KFS, I understand that a special certificate will be issued to those who copy its final message on the last

day of CW transmission. Remember, 48 turns on the big torroid will get you in the range of KFS if you don't have a general coverage receiver. Bummer it had to end on NorCal field day :(

73's all
Stephen Lee
AB7HI

From owner-qrp-l@netcom.com Mon Mar 20 11:49:46 1995
Date: Mon, 20 Mar 1995 05:13:26 -0800 (PST)
From: Steven Wilson <randyw@crl.com>
Subject: Re: Need Hallicrafters' S-38 Info
Message-Id: <Pine.SUN.3.91.950320050953.14034A-100000@crl111.crl.com>

The S-38 had an adjustable BFO. Also one of the tubes has to be metal since it is apart of the fine tuning. Internally you will also find a couple of wires twisted together - this is a gimmick cap for setting regeneration.

Find someone with the early SAMS Photofacts. The S-38 circuit is in one of the early ones. Sometimes TV shops that have been in business for every have the old SAMS.

Good luck I own a S-38 as a Novice in the early 1950's. hi
73 de stan AK0B

From owner-qrp-l@netcom.com Mon Mar 20 17:43:11 1995
From: RobCap@aol.com
Date: Mon, 20 Mar 1995 16:49:32 -0500
Message-Id: <950320164512_55376310@aol.com>
Subject: New Keyer Kit (Cheap)

SunLight Energy Systems (the folks who make the SunLogic charge controllers) has just introduced a new keyer kit called the "DYI Electronic CW Keyer". I put one in my Norcal 40A, and I like it because it's cheap, and it draws very little current.

Cheap: The kit costs \$15, which includes board, on-board components, hook-up wire, and miniature speed pot.

Low Current: The little jewel draws less than 1 mA. So my Norcal 40A (sans keyer draws 16.2 mA) now draws only 17.0 mA with a built in keyer. There are a lot of LED lamps that you can't light up with 17 mils!

Features: Well, none that I'm aware of. The only feature I know of is that

you can change the speed with the speed pot (does this count as a feature?). Does not feature memory, emulation, iambic, weighting, etc. Just dots and dashes. Period. End of story.

So for the most robust feature set for your favorite QRP kit, I would stick with the legendary Super CMOS Logikeyer II (that's what's running in both my Sierra and my MFJ Field Day "contest rig"). But if \$50 is too steep for your other seven QRP kits, and you want cheap keying for weekend outings, and you think that no QRP rig is complete without a cheap keyer, then take a look at the DYI.

Contact info follows.

73,

Rob, WA3ULH

SunLight Energy Systems
2225 Mayflower NW
Massillon, OH 44647
(216) 832-3114

From owner-qrp-l@netcom.com Mon Mar 20 14:53:36 1995
Date: Mon, 20 Mar 95 10:54:27 MST
From: miker@cc.com (Mike Robinson)
Message-Id: <9503201754.AA06214@cc.com >
Subject: Operating practices

I have 2uW of input on operating practices. Is there a reason CW ops start and end each xmission with everybody's call sign.

AA0UB de KZ6XYZ rr fb
....bk to u AA0UB de KZ6XYZ kn

I know who I am, and to whom I'm talking with. Even if I've just signed, he still gives my call. From what I remember in the Novice test, identify once every 10 minutes and at the end and I need only identify myself.

It's gotten so bad, they do it on VHF and UHF too!
"Ok Mike, see you later. AA0UB this is KZ6XYZ."

As far as I can tell, he just called me.

I like to throw'em off by immediately coming back with:

"Hi. How are you? What's up?"

As long as I'm spewing...What does "for id" mean?
The only time anyone uses anyone's call sign, is for id.
So why say, "for id." It's redundantly repetative. :^}

MQS:

Reading in 'The Milliwatt' about SWR. The argument comes up about whether or not a low SWR really means anything regarding actual power output from the antenna.

My problem with a high SWR is the apparent strain on the rig. My 30-40 would really heat up with a high SWR and my MFJ 9020 has such a loud sidetone that the AGC is swamped to the point that it takes a full 5 seconds to recover. It didn't do that with a well tuned (1:1) dipole.

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=====
7.3 de Michael aa0ub          | QRP:
miker@cc.com          Norcal #857 | "This thing's a radio?"
=====
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From owner-qrp-l@netcom.com Mon Mar 20 08:03:13 1995
Date: Mon, 20 Mar 95 07:19:25 EST
From: hysell@kodak.com (John D. Hysell)
Message-Id: <9503201219.AA03197@runner.itc.Kodak.COM>
Subject: PCB FAQ

X-Sun-Data-Type: text
X-Sun-Data-Description: text
X-Sun-Data-Name: text
X-Sun-Content-Lines: 13

John Evans writes:

>This question deserves a FAQ on PC-board work in general. IS there a FAQ
>for neophytes (oops, I shouldn't have used that word) on the subject? Is
>there a good up-to-date reference on hobbyists making PC boards?

>Enquiring minds what to know.

While not quite a FAQ, this may be a start for one... I deleted the mail headers from this material, so I can't direct you to the author. (Not me). Hope it helps someone get started.

73 de KF2XC

-John

X-Sun-Data-Type: default
X-Sun-Data-Description: default
X-Sun-Data-Name: pcb.txt
X-Sun-Content-Lines: 155

RI>I have never had any practical experience with printed pc-boards and
>would appreciate any hints that you could give me. For example,
>process considerations, favorite methods, supply sources, any tricks
>that you may know...

Your question leaves a LOT of room for some rather long-winded responses. There are so many different methods of making PC boards, I'm not even quite sure where to begin... and I've not tried nearly all of them.

Getting the circuit drawing onto the board (the ones I have found easiest):

Q&D Process

IF you want a Q&D (quick 'n dirty) PC board, consider using a RED Sanford Sharpie Waterproof Marker to draw the copper pattern directly on a CLEAN PC board.

First, draw out your circuit pattern on a piece of .10" x .10" square graph paper. Tape the graph paper over the bare PC board and use a sharp center punch to mark each point where a hole will eventually be drilled.

Using the Sharpie, draw small rings around each of the hole punch marks and then CAREFULLY connect the circles to create the rest of the circuit layout on the PC board. If you use a NEW Sharpie, you should not have to make but a single pass over each line to create a solid, waterproof, 'land'. If you have to go back over lines (e.g. to darken them when using a mostly expended pen), you will find that subsequent lines generally tend to erase the trace left by the previous line.

Photo-Etch Process

Contact KEPRO CIRCUIT SYSTEMS (St Louis MO) and get their product catalog. KEPRO has a pretty wide variety of products.

I prefer to use PC board which has been sensitized with a NEGATIVE-working resist (e.g. requires you to use a photo NEGATIVE for the light mask). With a negative-working resist, the light

which passes thru the negative 'hardens' the resist and the 'soft' part of the resist rinses away during the development process. The hardened resist protects the copper during the etching process.

Draw out your circuit design on .20" x .20" square graph paper (or using a CAD system) and then have your friendly neighborhood print shop reduce the layout to 50% and print a negative of the design for you.

You will need a source of ultraviolet light. Ultraviolet fluorescent tubes are available at more or less reasonable cost. Mount the light source in a suitable socket.

Take a pane of clear, CLEAN, glass and set it about 3" to 4" above the light source (I used to use two big dictionaries to support the glass on each end, above the light source).

Lay your negative FACE DOWN on the glass and place your sensitized PC board on top of the negative with a FLAT book on top of it to hold it flat and in place.

Turn your light source on for the recommended amount of time to expose the emulsion to the light.

HINT: Cut several SMALL pieces of PC board and lay them over the negative and start exposing them. At 2 minute intervals, between about 3 and 10 minutes, remove one of the pieces and develop it while the rest 'cook' under the light. Then check each piece to see which of them is the FIRST to be FULLY EXPOSED. Then pick the next one in the time series as the one whose time you should use for your exposure settings, THEN start exposing your 'real' board.

Once properly exposed, develop your board with whatever developer the manufacturer of the sensitized board recommends. KEEP YOUR FINGERS OFF THE PC BOARD AS YOU WORK WITH IT... ALL THE WAY FROM THE FIRST STEP TO THE LAST!

Etching the PC board:

Q&D

Obtain some (fresh) FERRIC CHLORIDE from your friendly PC board vendor.

Place your developed (but unetched) PC board into a PYREX loaf dish and pour in enough ferric chloride to cover the board to a depth of at least one inch.

You should almost immediately notice that the portion of the PC board which is no longer protected by resist (either the Sharpie Ink, or the hardened photo resist) will begin to turn dark. This is the copper as it is turned into cuprous chloride (if I recall).

GENTLY lift one end of the tray containing the etchant and PC board and start a slight back and forth 'wave' motion going to gently 'wash' the etched copper from the surface of the PC board. Continue this agitation until the board is completely etched.

Ferric Chloride is not so caustic that you cannot reach in and periodically remove the PC board for checking its progress if you cannot readily see it through the liquid. BUT.. WASH your hands each time you come into contact with this etchant.

Once the board pattern has been fully etched, WASH it in clear water and dry it off. Pour the etchant back into its bottle and wash the etch tray with water.

Etching Variations:

Find a way to (carefully) warm the etchant to 100 degrees or so. This will greatly speed up the etching process... almost a necessity when using FeCl which is pretty much already used up.

Build a 'spray etch' tank out of a 2-gallon aquarium. Rig up an etchant circulator and a hose to flow the etchant over the PC board. This provides the 'washing' action to remove the etched copper much more quickly than you can do with mere tray agitation. I used a cheap, plastic, impeller water pump (motor mounted 8" above the impeller, out of the way of the etchant) and a 3/8" hose for my circulator. I coated the metal motor-to-impeller shaft with epoxy to protect it from the etchant.

There's another commonly used etchant (ammonium persulfate, I think), which is not too bad to use. It's clear and you can see the PC board a lot better. It comes in dry form and you add water to it. It works much better when heated. It does not last nearly as long as FeCl, but may be lower cost, too. I still don't like using it as well as FeCl, even though FeCl is more messy.

CAUTIONS -

- 1) FeCl is an oxidizer. It reacts rather violently with ALUMINUM and CONCRETE.
- 2) FeCl is NOT fun to get into finger cuts! It takes a few

seconds or so, but you will know it's there!

- 3) FeCl will also damage clothing... FeCl stains which have dried are usually permanent and will eventually result in holes if left on cloth. Wear clothing that you don't care about, because it's almost a sure thing that you will get it on your clothing..
- 4) FeCl can be disposed of down the drain IF very well diluted with water. Dispose of properly.

If my chemistry serves me right, you can neutralize the acid by adding a buffer (AKA salt water). But with as little chemistry I have, it just might also cause an explosion, 8-|

FeCl is extremely toxic. The first time I used it, I didn't know where to get rid of it. I dumped 1/2 cup on the ground, it killed a tree.

From owner-qrp-l@netcom.com Mon Mar 20 23:45:28 1995
From: C=BAILEY%IS%211EIS@PAMDT.ANG.AF.MIL
Message-Id: <199503210243.SAA15451@netcom.netcom.com>
Date: Mon, 20 Mar 95 11:10:47 EST
Subject: Rough Times from the QRO's

Yes, I can relate. I used to think that CW was the ladies/gentleman's mode of choice until got serious about QRP. During the CQC contest, I was calling CQ QRP TEST and this QRO station came back and sent.....IM NOT QRP BUT UR SIGNAL IS.....(Nils, guess I was running the right amount of power)! Pity that if your sig is not 20db over S9, that it is too much work to listen to you. Reminds me of those on the 2m repeaters who will cut the QSO because "your signal is starting to chop up". That's why I prefer the weak signal modes on VHF/UHF. (See they even call it *weak* signal...HA!).
[SOAPBOX OFF]

[CONFESSION MODE ON]

Even when I **was** QRO (100 watts), I thought it was a challenge to work a QRP station. I was proud of my ability to work a QRP station! Then, the light bulb went on. I thought if I can hear them, then could they hear me if I was QRP? Duh... Some of us are slow to catch on.....be patient.

72 de cameron, kt3a (Just wait till I tell them I'm milliwatting)!
WA8MCQ will be proud anyway.

From owner-qrp-l@netcom.com Mon Mar 20 16:58:37 1995
Date: Mon, 20 Mar 95 10:24:01 PST

From: TLeonard@ccmgate.mti.com (Leonard, Tim)
Message-Id: <9502207957.AA795723841@ccmgate.mti.com>
Subject: Re: signing /QRP

Just a note to express my total disagreement concerning QRP
vs. QRO.

I regularly call CQ with 20 watts or less in both the 40 and
20 meter cw bands. It is very rare that I do not receive a
reply; the reply's are usually from QRO stations running 100
watts. In other words, it is rare for a QRP station to
respond to a signal that is not at least 59 plus; the point
being that it works both ways.... In my experience, it is
also true that the typical QRP'er wants a signal report, QTH,
and rig info followed by 73. This experience has led me to
avoid stations signing QRP since I am not interested in a
quick signal report from ANY station. Finally, numerous
times while running QRO (25 watts) I have responded to a QRP
station by turning down the power to 5 watts. The typical
response is for the QRP guy to tell me that he can not copy
me and sign; yet 1. I was quite capable of copying him using
the filters and bandpass tuning on my receiver. 2. He
expected me to be able to copy his weak signal yet his
station was not capable of the same level of performance.

The bottom line is that there are two sides to everything
and the next time you call a QRO station, ask him to turn
his power down to 5 watts so that you can get an idea of
what the other end is like.

Tim AA6DQ

From owner-qrp-l@netcom.com Mon Mar 20 09:32:11 1995
From: Bob_White@CCMAIL.AEROSYS.LORAL.COM
Date: Mon, 20 Mar 95 08:47:46 EST
Message-Id: <9502207957.AA795718327@CCMAIL.AEROSYS.LORAL.COM>
Subject: SSB QRP Fox Hunt 3/21/95 21:00-23:00 EST

"And a fun time was had by all! Thanks Ron."

Bob White W03B 3/14/95
re:Internet SSB Fox Hunt

Announcing the.....

First Annual First Day of Spring, Don't forget to put up your 160
meter Sky Loop before the leaves come back out, Internet QRP SSB Fox

Hunt!"

Featuring 160 Meters!

This weeks QRP SSB Fox Hunt is scheduled for Tuesday evening (EST) with the following segments:

21:00-21:30 EST 1.850 - 1.870 MHz (160 meters)

21:30-22:00 EST 3.780 - 3.788 MHz (75 meters)

22:00-22:30 EST 3.900 - 3.910 MHz (75 meters)

22:30-23:00 EST 1.850 - 1.870 MHz (160 meters)

This is basically the same format that was so successful for Steve AB4EL two weeks ago, besides, I really don't feel like talking to myself on 40 meters for one hour.

W03B is located in Pasadena, MD which is about 12 mi.. SE of Baltimore and 12 mi.. NE of Annapolis. To be precisely, 39 07.44N 76 27.02W.

I will be radiating from a 160 meter Sky Loop up at about 55 feet which was erected by Sky Loop constructor extraordinaire John K04A (call sound familiar? He just joined the QRP-l. He has put up close to 20 of these things for members of our club.) I will be wearing my best ears (TS 940S and a DSP) and be exciting the airways at precisely 5 watts output.

I am a lonely Fox looking forward to being found, again and again and

Until Tuesday.

72/73,
Bob White W03B

bob_white@ccmail.aerosys.loral.com//W03B@WB3V.md.usa.na

From owner-qrp-l@netcom.com Mon Mar 20 13:55:00 1995
From: RobCap@aol.com
Date: Mon, 20 Mar 1995 12:54:24 -0500
Message-Id: <950320125418_55130514@aol.com>
Subject: Tektronix 310A Oscilloscope

I just bought a used Tektronix 310A Oscilloscope. The scope is in very nice condition, and I paid \$50. It works very well, but is not in perfect calibration with the internal voltage calibrator.

I would like to calibrate the scope, but do not have the service manual. Does anybody on frequency have the service manual and/or calibration instructions in a form that could be a) mailed, b) faxed, or c) e-mailed?

Thanks for the help.

73,

Rob, WA3ULH

From owner-qrp-l@netcom.com Mon Mar 20 18:16:54 1995
From: rehm@zso.dec.com
Message-Id: <9503202145.AA20397@slugbt.zso.dec.com>
Subject: Re: Tektronix 310A Oscilloscope
Date: Mon, 20 Mar 95 13:45:23 -0800

> I just bought a used Tektronix 310A Oscilloscope.

> Does anybody on frequency have the service manual and/or calibration
> instructions in a form that could be a) mailed, b) faxed, or c) e-mailed?

You can purchase original (and legally copied) test equipment manuals as well as new oscilloscope probes from:

Manuals Plus
P.O. Box 937
Spanaway, WA 98387-0937
(206) 531-8031
(206) 536-1121 (fax)
Office Hours: 8:30 a.m. - 4:00 p.m. Pacific Time, M-F

They claim to have "1000's of manuals for all types of test equipment in stock. Computerized database for fast look-up and response."

You must call, fax or mail your list of wants...they cannot send out listings.

I purchased a photocopy of a manual for an HP-410C multimeter (the one with the Buck Rogers RF probe) for \$10.00, and got it very quickly.

Just a satisfied customer,

/eric rehm

KJ7AE
Seattle, WA